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Acquisition Research Program

Acquisition Research Program Need to Know Newsletter

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2020-09-18

## NPS Need to Know Newsletter Acquisition Research Program, 2020-09-18

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Monterey, California. Naval Postgraduate School

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Dear ARP friends,

This week brings plenty of news from the Air Force Association's Virtual Air, Space and Cyber conference that resonate across the DoD, from General Raymond's description of a lean Space Force organization with organic coding expertise to the announcement of the first flight of the secretive next-generation fighter jet to Will Roper's retro-future vision of digital acquisition, design, and manufacturing. (His keynote speech and strategic document, "Take the Red Pill," use the 1999 movie *The Matrix* to illustrate both the need for a transformational shift in thinking and the symbiotic relationship between the digital and physical worlds of defense acquisition.)

In Congress, there's more evidence that we're looking at several months of continuing resolutions, especially if there's a change in the presidential administration. Secretary Esper finally confirms the future naval force should have 355 ships, manned and unmanned; but to get there, Congress needs to provide "adequate, sustained, predictable, and timely budgets." And we continue to celebrate ARP researchers and faculty, highlighting a CSIS report on MDAP R&D that began with an ARP grant and an article by NPS professor Dan Finkenstadt offering suggestions for how to improve the Strategic National Stockpile. Plus more! Happy reading, and happy Friday.

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**<https://nps.edu/web/acgnresearch/newsletter>**



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Issue 24

## **ARP Research: Symposium Spotlight**

### **Panel #23: Software Development and Sustainment**

#### **Factors Limiting the Speed of Software Acquisition**

*David Tate and John Bailey (Institute for Defense Analyses)*

- **Micro-abstract:** The factors limiting the speed of software acquisition and enhancement fall into seven principal categories, which we rank in rough order of importance. **Read the [Paper](#) and [Presentation](#).**

#### **Using Texture Vector Analysis to Measure Computer and Device File Similarity**

*Bruce Allen (Naval Postgraduate School), Neil Rowe (Naval Postgraduate School)*

- **Micro-abstract:** It is useful to study file similarity between executable files to verify valid updates, identify potential copyright infringement, identify malware, and detect other abuse of purchased software. An alternative to relying on simplistic methods of file comparison, such as comparing their hash codes to see if they are identical, is to identify the “texture” of files and then assess its similarity between files. **Read the [Paper](#) and [Presentation](#).**

See more research in the full [Proceedings of the 17th Annual Acquisition Research Symposium](#).

## **This Week’s Top Story**

### **Take the Red Pill: The New Digital Acquisition Reality**

Will Roper

Should you continue reading, your defense acquisition training – no matter what lifecycle facet, function, or operational domain – becomes a dream from which to wake up...to something new. Digital Engineering and Management, combined with Agile Software and Open Architecture, truly is the “red pill” for traditional defense acquisition. I am excited to share more about this trinity of digital design technologies, why their Wonderland excites me, and how they foretell a faster, agiler, and more competitive weapons-buying process our nation needs to succeed long term.

This Red Pill guide for Air Force and Space Force Digital Acquisition is designed to “disrupt your input/output carrier signal” of analog thinking. It will illuminate terms and provide insights, best practices, and litmus tests for success (as best we know them) from some commercial industry and bellwether Air Force programs. But digital transformation, writ large, is still in flux. Only 44 “lighthouses” of excellence are recognized worldwide in commercial industries like automotive and microelectronics; only 3 defense programs – the T-7A RedHawk, Ground Based Strategic Deterrent (GBSD), and Next Generation Air Dominance (NGAD) – are radically digital; and only 1 program, NGAD, is positioned to transform its lifecycle through a fully digital acquisition.

So digital acquisition is still very new. Your journey will increase our Department’s collective knowledge until past practices are shed, and we become **truly digital Forces**.

[Read more online.](#)

## **ARP and NPS News**

### **Why the U.S. Still Has a Severe Shortage of Medical Supplies**

Daniel Joseph Finkenstadt, Robert Handfield, and Peter Guinto | Harvard Business Review

Professor Finkenstadt leads the enterprise sourcing program at NPS’s Graduate School of Defense Management. This article argues that “a slew of glaring supply-chain deficiencies have yet to be fixed. Our team, which was involved in efforts by the federal government’s Supply

Chain Task Force to understand and address the problems, found that the deficiencies are very solvable — if the federal government gives the Strategic National Stockpile agency greater clout, provides it with access to better information and technology, and beefs up its expertise.”

### **Is the Ratio of Investment between Research and Development to Production in Major Defense Acquisition Programs Experiencing Fundamental Change?**

Rhys McCormick, Gregory Sanders, Andrew P. Hunter | Center for Strategic & International Studies

This ARP-sponsored research charts the history of DoD and Service-level investment in R&D as compared to production costs. “For firms like Boeing and others in the defense marketplace, the business model has been to conduct development and early production at a monetary loss before turning a profit as production ramps up. However, if a fundamental change in the relationship between development and production is underway, these business models may no longer be sustainable.”

## **Acquisition and Innovation**

### **Space dominance requires taking technology and policy risks**

Gen. Jay Raymond

### **Air Force seeks a radical shift in how jets, missiles and satellites are designed**

Aaron Gregg and Paul Sonne, The Washington Post

### **How and When GSA’s New Central Contracting Portal Will Lose the ‘Beta’**

Aaron Boyd, Nextgov

### **Hon. James Geurts: Innovation in the Navy | Future of the Joint Force #16 (podcast)**

Future of Work Pioneers

### **Army Futures Command picks Austin Community College for software factory**

Jen Judson, C4ISRNET

### **The 4 federal shared services marketplaces are shaping up**

Dave Nyczepir, Fedscoop

### **CMMC board ousts chairman and other top member**

Jackson Barnett, Fedscoop

### **Army to award contract for GPS alternative by end of September**

Nathan Strout, C4ISRNET

### **Why the Pentagon’s JEDI Saga Is Far From Over**

Frank Konkel, Nextgov

### **18F Says 6 Core Concepts Can Reduce Risk in Federal Tech Projects**

Aaron Boyd, Nextgov

## **Events**

### **Software Armories (Exploring problems the DoD faces with software development)**

C4ISRNET Removing Stovepipes Webcast Series  
Sep 22, 2020 | 11:00 a.m. ET

### **Office of Management & Budget, An Insider's Guide**

National Academy of Public Administration  
September 30, 2020 | 10:30 a.m.-12:00 p.m. ET

### **Government Contracting in a Changed World**

George Mason University Center for Government Contracting and Defense Acquisition  
University  
October 6, 2020 | 8:00 a.m. – 12:45 p.m. ET

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## **Research**

### **The Federal Acquisition Service's Reporting of Small Business Procurements Contained Significant Inaccuracies**

Office of Inspector General, U.S. General Services Administration

## **COVID-19 and Defense Innovation**

### **The Defense Digital Service played a novel role in securing the Navy's COVID-19 relief missions**

Billy Mitchell, Fedscoop

### **How the Military Is Supporting the Historic Race for a COVID Vaccine**

Patricia Kime, Military.com

### **Pentagon AI tool for battling coronavirus hold lessons for war**

Andrew Eversden, C4ISRNET

## **Defense and Federal Government**

**[Pentagon business reforms in limbo \(video\)](#)**

Jinitzail Hernandez, Roll Call

**[Commentary: The Next National Defense Strategy Will Be Shaped by Post-BCA Budget Instability](#)**

Diem Salmon, Center for a New American Security

**[Pentagon Chief Unveils New Navy Force Level Plans](#)**

Jon Harper, National Defense

**[Secretary of Defense Speech at RAND \(As Delivered\)](#)**

U.S. Department of Defense

**[Chinese hackers use open-source tools against U.S. networks](#)**

Zach Dorfman, Axios Codebook

**[The US Air Force has built and flown a mysterious full-scale prototype of its future fighter jet](#)**

Valerie Insinna, Defense News

**[Driven by 'a tectonic shift in warfare' Raymond describes Space Force's achievements and future](#)**

Charles Pope, Secretary of the Air Force Public Affairs

**[CSAF Brown Mulls Streamlining Of Air Force Commands; Barrett Announces 'e' Aircraft](#)**

Theresa Hitchens, Breaking Defense

**[Here's when the US Navy thinks the carrier Ford will be ready to deploy](#)**

David B. Larter, Defense News

**[Marines Placing Small UAVs into Ground Combat Element, As Aviators Still Refining Large UAS Requirement](#)**

Mallory Shelbourne, USNI News

**[Education](#)**

**[The College Money Crisis](#)**

David Leonhardt, The New York Times

**[Policy](#)**

**[Federal Acquisition Regulations: FAR Case 2017-014, Use of Acquisition 360 To Encourage Vendor Feedback](#)**

Federal Register

## Congress

### [Defense industry worries Congress will punt budget deal into 2021](#)

Joe Gould, Defense News

### [Hurd, Kelly Bill Protecting American and Government Information from Hacking Passes](#)

Press Release from Rep. Will Hurd

### [‘Incremental changes’ not enough for AI workforce development, commission tells Congress](#)

Jackson Barnett, Fedscoop

### [Bill tasking agencies with publishing budget requests passes House](#)

Eric White, Federal News Network

### [HASC Schedule: September 21 – 25](#)

House Armed Services Committee

### [Upcoming SASC Hearings](#)

Senate Armed Services Committee

## Acquisition Tips and Tools, with Larry Asch

### **Who You Gonna Call to Fix DoD-Industry Communication?**

In [Recommendation #84](#), the Section 809 Panel requested Congress direct DoD to communicate better with the marketplace. But Congress may not be the right friend to phone on this challenge.

First, let's acknowledge that DoD is already moving in the right direction. In recent years, DoD culture and behavior regarding communication with the marketplace has changed for the better. Innovative acquisition teams understand that the rewards of industry engagement outweigh the perceived risks. But we need to continue this positive momentum.

Who can we call to institutionalize this mindset across DoD? Let's start by calling Myth-Busters! The Office of Federal Procurement Policy (OFPP) has a series of memos called 'Myth-Busting,' in which they counter common misconceptions with facts. Here are a few examples related to industry engagement from [Myth-Busting Memo #4](#):

**Misconception** - "A protest is something to be avoided at all costs - even if it means the government limits conversations with industry."

- ➔ **Fact** - Restricting communication won't prevent a protest, and limiting communication might actually increase the chance of a protest - in addition to depriving the government of potentially useful information.

**Misconception** - "We can't meet one-on-one with a potential offeror."

- ➔ **Fact** - Government officials can generally meet one-on-one with potential offerors as long as no vendor receives preferential treatment.

The OMB Myth-Busting memos are an example of a great initiative that hasn't gone far enough at DoD. We don't need Congress to change the protest-averse culture that has created arm's-length communications. DoD needs to give the acquisition team the confidence and experience to do things differently by taking the following steps:

- Share examples of successful communication with the marketplace (there are some great examples happening during these virtual times). These should include:
  - Industry Day and Reverse Industry Day examples
  - Incremental draft documents that allow industry to better understand and comment and allow the government to put together a better solicitation
  - Pre-solicitation and pre-proposal conference examples
- Work with OFPP or create a DoD version of a Myth-Busting #5, with roadshows and training.
- Immediately update training on the importance of doing *real* market research, including success stories, and have the audience come primarily from Program Management Offices (PMO).
- Train PMO and contracting personnel on how to prepare a Request for Information (RFI).
- Emphasize the importance of continued communication with the winning contractor during contract administration phase.

There are clearly benefits to foster and encourage open communication between the marketplace and the government during an acquisition process, and the openness conducted prior to award will build a foundation of trust and common understanding that is critical to a successful partnership after award.

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